ABSTRACT

IMPROVED SCREEN FOR REAR PROJECTION VIEWERS

This report updates the progress of our investigations of Corning Glass Works materials, for applications in rear projection screens. Special alumina-magnesia materials have been requested, as have samples of glass-ceramic and some photo-sensitive glasses.

Reduction of the measured scattering data is discussed. An analysis is presented of the treatment of scattering data to be taken during the future experimental phases of the program. It is proposed that scattering data be normalized to a spherical isotropic radiator which has the same amount of incident power rather than to the power scattered into the forward hemisphere. It is argued that this leads to the most meaningful evaluation of screen performance.

The status of the instrumentation we are fabricating is given along with some preliminary data taken on the resolving power of a rear projection screen. The goniophotometer is complete except for routine calibration procedures. The modulation transfer function analyzer requires completion of the sine-mask and "contrast computer". Objectives for next period and approaches to the various problems are outlined.